

Memorandum

DATE: **June 2, 2022**

WAP Memorandum 091

REPLY TO

ATTN OF: *ebb* **Erica Burrin, Weatherization Assistance Program, Program Manager
Weatherization and Intergovernmental Program Office**

SUBJECT: **Weatherization Assistant Suite of Tools Update and Transition Requirements**

TO: **Weatherization Assistance Program Grantees**

INTENDED

AUDIENCE: **Grantee Program Managers, Grantee Technical Managers, Subgrantee Program Directors,
Subgrantee Technical Managers, Weatherization Training Centers**

SUPERSEDES: **Memorandum 074 and 074A**

Background:

The Weatherization Assistant (WA) Suite consists of four audit tools specifically developed by the Oak Ridge National Laboratory (ORNL) to assist in implementation of the US Department of Energy's (DOE) Weatherization Assistance Program (WAP). These tools are available for use within the WAP and may also be adopted by utilities and other home energy professionals.

WA Suite consists of:

- National Energy Audit Tool (NEAT) for site-built, single-family homes.
- Manufactured Home Energy Audit (MHEA) for manufactured homes.
- Multifamily Tool for Energy Audits (MulTEA) for multifamily buildings.
- Health and Safety Audit for single-family homes (including manufactured homes) and individual dwelling units in multifamily buildings that are being weatherized.

The three energy audit tools identify cost-effective energy-efficiency retrofit measures by considering site specific weather conditions and construction details, local retrofit measure costs, and area fuel costs. The Health and Safety Audit assists in the identification and selection of health and safety measures when a dwelling is being evaluated for energy-efficiency retrofits.

There are currently two versions of the WA tools: a desktop computer application for NEAT and MHEA that works on a local network only, and a web-based application that provides access to MulTEA and the Health and Safety Audit. ORNL is nearing completion of the migration of NEAT and MHEA to the web-based application (version 10) to enhance functionality and provide a single platform for accessing the WA Suite.

Update:

To comply with the requirement outlined in [Weatherization Program Notice \(WPN\) 19-4 \(Section 2\)](#), Grantees with DOE approval for use of NEAT and/or MHEA will be required to transition from the desktop computer application version 8 (WAv8) to the web-based version 10 (WAv10) by the Program Year (PY) 2024 start date (April 1 or July 1, 2024). To facilitate a smooth transition, Grantees may begin to transition as early as November 1st, 2022, and training resources will be available as described below. Flexibility will be provided on a case-by-case basis in the instance of IT/Bug issues that arise.

As part of the release of WAv10, the following updates/enhancements will be included:

- Measure maximum lifetime increase from 25 to 30 years.
- LED lighting measure analysis with dynamic lifetime calculation.
- ASHRAE Standard 62.2-2016 compliant calculator.
- Revised HVAC and Duct system description forms.
- Single-step HVAC fuel-switching measure analysis.
- Corrected Evaporative Cooler efficiency calculations.
- Centralized user access and privilege administration.
- Realigned energy-conservation measure order of application and interaction based upon Savings to Investment Ratio (SIR).
- Updated existing equipment databases.
- Updated weather files.
- Non-Energy Impact calculation framework.

WAv10 builds upon over three decades of refinement embodied in the latest desktop-based NEAT/MHEA calculation engine (WA8.9.0.5) and benefits from all previous testing, evaluation, validation, and updates from 1988-2012. To confirm that WAv10 builds upon previous improvements, the following testing has been completed on the version 10 calculation engine:

- Regression analysis using 78 NEAT and/or 55 MHEA purpose-built audits designed to test full audit and measure coverage, and all possible audit and measure paths.
- Regression analysis of each implemented engine calculation prior to production rollout.
- Complete calculation engine regression analysis with comparable results held to a tolerance of 0.5% or less.
- Over 1000 user-input energy audits completed through the WAv10 public testing site.

Transition Process:

- Notification: Grantees must notify their respective DOE Project Officer (PO) of any changes to their approved Grantee annual plan. These changes include:
 - Transition to WAv10 with timeline and target dates.
 - Projected training and technical assistance (T&TA) for Grantee and Subgrantee staff with timelines and target dates.
 - See projected training schedule below
- Documentation Submittal: Grantees need to demonstrate that set-up libraries, supply libraries, and fuel costs have been properly updated.

- No additional audit documentation will be required regarding their transition to WAv10 unless the transition results in changes to the audit procedures previously approved by DOE in writing. Examples of items that require additional information to be submitted are:
 - Inclusion of fuel switching.
 - Inclusion of non-appendix A materials.
 - Updating itemized cost procedures.
 - Change in measure lifetimes outside of DOE defaults.
- Import of existing databases: DOE is supporting a one-time import of all historical audit data, for record retention purposes, from their WAv8.9 database(s) into a new WAv10 database for Grantees. Additional import requests will be available to Grantees with the use of Grantee T&TA funding.
 - ORNL will provide direct support to Grantees during this process.
 - The import process will be available beginning November 1, 2022.
 - Beginning November 1, 2022, Grantees may contact Bill Eckman at ORNL (eckmanwe@ORNL.gov) to receive the requisite details to complete this import (e.g., file format, upload process, naming conventions).
 - This one-time import, if desired, shall be completed within six months of transitioning to WAv10 (pre or post transition).
- Data export: Grantees using third-party software for work order generation and tracking, program and funding management, or other program functions will have the option to export audit and work order data using a standardized format. Format schema will be made available to third-party software developers, upon request, starting in September 2022.

Implementation Timeline:

<u>Grantee Task</u>	<u>Due Date</u>
Grantees may begin transition to WAv10	November 1, 2022
Grantees must complete transition, including any updates to annual plans, to WAv10	Beginning of Grantee PY24 (April 1 st or July 1 st , 2024)

Training Opportunities:

To assist Grantees and Subgrantees through successful transition to the web-based versions of NEAT and MHEA (WAv10), DOE has commissioned ORNL to provide materials for training development and support to Grantees and Training Providers throughout the transition. A basic timeline of support and development activities is shown below. The timeline provides for two key milestones for WAP Grantees and Training Providers. First, release of foundational training materials focused on supporting Grantees and WAP Training Providers who plan to train existing WAv8 users to use WAv10 (shown as “WAv10 Materials for Training Development - Existing User Conversion”). Following feedback from WAP training experts, ORNL will then release the second round of training materials and delivery guidance focused on training new WAv10 users (shown as “WAv10 Materials for New User Training Development”). Additional details regarding these items will be made available to the WAP network via [GovDelivery](#) as more information becomes available.

Training Opportunities:

<u>Training Event or Resource</u>	<u>Description</u>	<u>Tentative Date</u>
Training Event: WAv10 Preview	Live demonstration of WAv10 for users and trainers prior to release	August 2022
Listening Session: WAv10 Materials for Training Development	User feedback on training development items to be provided by ORNL for existing user conversion (from WAv8)	August 2022
Resource: WAv10 Materials for Training Development – Existing User Conversion Release	Publish foundational training materials for trainers supporting user conversion from WAv8	November 2022
Listening Session: WAv10 Materials for Training Development	User feedback on the WAv10 Materials for Training Development provided by ORNL	January 2023
Resource: WAv10 Materials for Training Development - New User Release	Publish training materials and guidance for trainers supporting new WAv10 users	May 2023

Conclusion:

DOE's commitment to continuous improvement has driven the implementation of this update to the WA suite of tools utilized by the WAP network. Throughout this process DOE will keep the WAP network informed of additional updates, resources, and training opportunities as they become available.

For questions or concerns about implementation regarding Grantee approved plans, please contact your DOE PO, and copy Derek Schroeder (derek.schroeder@ee.doe.gov). For questions or concerns that are technical in nature specific to WAv10, please contact ORNL (eckmanwe@ornl.gov) and include your respective DOE PO.